

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

1. (currently amended) A service system including comprising:
a plurality of server apparatuses;
a plurality of client apparatuses; and
a plurality of data processing relay apparatuses for relaying data
communication communications between said server apparatuses and said client
apparatuses, wherein said each server apparatus comprises: ~~a means responsive to~~
~~a service request issued by said client apparatus to prepare or create data~~
~~processing control information indicative of a processing method of data requested,~~
request receiving means for receiving a service request issued by a client
apparatus, the service request requesting data provided by said server apparatus,
an extended data producing means for producing extended data including
~~said requested data~~ requested in said service request and ~~said data processing~~
control information indicating how to process the data, and
a means for transmitting said extended data as a response to said service
request,
wherein said data processing relay apparatus comprises:
a means for receiving said service request to said server apparatus from said
client apparatus to transfer said service request to said server apparatus and
receiving said response from said server apparatus;

a data processing unit for determining if said received response is said extended data or not, and if said response is said extended data, processing said extended data received from said server apparatus in accordance with said data processing control information added to included in said extended data to produce its processed result data, and

a means for transmitting said processed result data produced by said data processing unit to said client apparatus as response data to said data service request received from said client apparatus.

2. (currently amended) A service system according to Claim 1, wherein said data processing relay apparatus further comprises:

a memory unit for storing said extended data received from said server apparatus, and

wherein said receiving means of said data processing relay apparatus checks, when receiving another service request from said client apparatus, if when said extended data corresponding to a response to said another service request received from said client apparatus is already stored in said memory unit, and

if said receiving means determines said extended data is stored in said memory unit, said receiving means stops transferring said another service request to said server apparatus and said data processing unit uses said extended data already stored in said memory unit to respond to as said extended data for a response to said another service request.

3. (currently amended) A service system according to Claim 2, further comprising:

a user management apparatus ~~server~~ connected to said data processing relay apparatus through a communication line to ~~for managing~~manage, for each user, user management information containing user authentication information for authenticating said user of said client apparatuses and user group information indicative of a group to which said user belongs, wherein

wherein said client apparatus adds user authentication information to
~~comprises a means for transmitting said service request containing user authentication information,~~

wherein said data processing relay apparatus further comprises:

a user authentication unit for authenticating said user by using said user authentication information contained in said service request and said user authentication information contained in said user management information registered in said user management server,

~~wherein said data processing control information preparing or creating~~extended data producing means of said server apparatus creates said data processing control information of said extended data containing further adds individual control information indicating process depending on each user to said data processing control information~~for each user in response to said service request,~~

wherein said data processing unit of said data processing relay apparatus performs said process depending on each user~~decides said processing method of said requested data corresponding to said user of said client apparatus by using said~~

individual control information and said authorized user authentication information ~~user authentication result.~~

4. (currently amended) A service system according to Claim 3, further comprising:

a charging management apparatus connected to said data processing relay apparatus through a communication line to manage user charge information which is charge information for said each user, wherein

~~wherein~~ said ~~data processing control information preparing or~~ creating extended data producing means of said server apparatus ~~creates said data processing control information containing charging process to said charging process~~ in accordance with said charging instruction information to determine charging amount and transmits said charge information including said determined charging amount to said charging management apparatus ~~instruction information specifying charge information with respect to said requested data,~~

~~— said data processing unit of said data processing relay apparatus transmits said response data to said user of said client apparatus authenticated by said authentication unit, and transmits charge information for said response data to said user to said charging management apparatus.~~

5. (currently amended) A service system according to Claim 4, wherein said extended data producing means of said server apparatus further adds user

specifying information to said charging instruction information such that charging amount varies depending on said user.

~~—said data processing control information preparing or creating means of said server apparatus creates said charging instruction information containing information for specifying said user wherein each of said information for specifying said user corresponds to each of said charge information for each user.~~

6. (currently amended) A service system according to Claim 4, wherein ~~said data processing control information preparing or creating~~extended data producing means of said server apparatus specifies charge range information as said charging instruction information, and

wherein said data processing unit of said data processing relay apparatus uses said charge range information to decide said charge information.

7. (currently amended) A service system according to Claim 6, wherein ~~said data processing control information preparing or creating~~extended data producing means of said server apparatus ~~creates~~adds said data processing control information of said ~~extended data containing instruction information which specifies an indication information indicative of replacement or insertion by other data at a specified part of said requested data~~for replacing a part of said requested data with other data or inserting other data to said requested data, and

wherein said data processing unit of said data processing relay apparatus performs replacement or insertion processing by other data at said specified part of

said requested data in accordance with said instruction information of said data processing control information of said extended data.

Claims 8-11 (canceled)

12. (currently amended) A service system according to Claim 7, wherein said client apparatus ~~creates said data request containing~~adds said user identifying information to said data request, and

said service system further comprising:

a data information server which is connected to said data processing relay apparatus through a communication line, and manages ~~said replacement or insertion data~~ with user attribute information in corresponding manner to each other, ~~so that said replacement or insertion data can be searched by user attribute information,~~ wherein ~~said user management server~~ and manages said user identifying information and said user attribute information in corresponding manner to each other,

wherein said data processing unit of said data processing relay apparatus ~~first gets~~obtains said user attribute information corresponding to said user identifying information ~~with reference to~~from said user management server, then in accordance with said instruction information, selects replacement or insertion data corresponding to said user attribute information from said data information server, and finally uses said selected data for replacement or insertion of said requested data as said other data.

Claims 13-19 (canceled).